Connecting via Winsock to STN

```
Welcome to STN International! Enter x:x
```

LOGINID:ssspta1612bxr

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

```
* * * * * * * * * *
                     Welcome to STN International
NEWS
                 Web Page for STN Seminar Schedule - N. America
NEWS
      2 MAR 31
                 IFICDB, IFIPAT, and IFIUDB enhanced with new custom
                 IPC display formats
NEWS
      3
         MAR 31
                 CAS REGISTRY enhanced with additional experimental
                 spectra
NEWS 4 MAR 31
                 CA/CAplus and CASREACT patent number format for U.S.
                 applications updated
NEWS 5 MAR 31
                 LPCI now available as a replacement to LDPCI
NEWS 6 MAR 31
                 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS
     7 APR 04
                 STN AnaVist, Version 1, to be discontinued
NEWS 8 APR 15
                 WPIDS, WPINDEX, and WPIX enhanced with new
                 predefined hit display formats
NEWS 9 APR 28 EMBASE Controlled Term thesaurus enhanced
NEWS 10 APR 28 IMSRESEARCH reloaded with enhancements
NEWS 11 MAY 30
                 INPAFAMDB now available on STN for patent family
                 searching
NEWS 12 MAY 30
                 DGENE, PCTGEN, and USGENE enhanced with new homology
                 sequence search option
NEWS 13
         JUN 06
                 EPFULL enhanced with 260,000 English abstracts
NEWS 14
         JUN 06
                 KOREAPAT updated with 41,000 documents
NEWS 15
         JUN 13
                 USPATFULL and USPAT2 updated with 11-character
                 patent numbers for U.S. applications
NEWS 16
         JUN 19 CAS REGISTRY includes selected substances from
                 web-based collections
NEWS 17
         JUN 25
                 CA/CAplus and USPAT databases updated with IPC
                 reclassification data
         JUN 30 AEROSPACE enhanced with more than 1 million U.S.
NEWS 18
                 patent records
         JUN 30
                 EMBASE, EMBAL, and LEMBASE updated with additional
NEWS 19
                 options to display authors and affiliated
                 organizations
NEWS 20
         JUN 30
                 STN on the Web enhanced with new STN AnaVist
                 Assistant and BLAST plug-in
NEWS 21
         JUN 30
                 STN AnaVist enhanced with database content from EPFULL
NEWS 22
         JUL 28
                 CA/CAplus patent coverage enhanced
NEWS 23
         JUL 28
                 EPFULL enhanced with additional legal status
                 information from the epoline Register
NEWS 24
         JUL 28
                 IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS 25
         JUL 28
                 STN Viewer performance improved
NEWS 26
         AUG 01 INPADOCDB and INPAFAMDB coverage enhanced
```

NEWS 27 AUG 13 CA/Caplus enhanced with printed Chemical Abstracts page images from 1967-1998

NEWS 28 $\,$ AUG 15 $\,$ CAOLD to be discontinued on December 31, 2008 $\,$

NEWS 29 AUG 15 CAplus currency for Korean patents enhanced

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability

NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 17:26:49 ON 20 AUG 2008

=> file reg COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

COST IN U.S. DOLLARS

FILE 'REGISTRY' ENTERED AT 17:27:05 ON 20 AUG 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ${\tt ZIC/VINITI}$ data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 AUG 2008 HIGHEST RN 1042061-07-3 DICTIONARY FILE UPDATES: 19 AUG 2008 HIGHEST RN 1042061-07-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting ${\tt SmartSELECT}$ searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>

Uploading C:\Documents and Settings\brobinson1\My Documents\aerggg.str

L1 STRUCTURE UPLOADED

=> s 11

SAMPLE SEARCH INITIATED 17:33:26 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 38 TO ITERATE

100.0% PROCESSED 38 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 391 TO 1129
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s 11 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y FULL SEARCH INITIATED 17:33:33 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 702 TO ITERATE

100.0% PROCESSED 702 ITERATIONS 1 ANSWERS

SEARCH TIME: 00.00.01

L3 1 SEA SSS FUL L1

=> file hcaplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST

182.96

183.17

FILE 'HCAPLUS' ENTERED AT 17:33:35 ON 20 AUG 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Aug 2008 VOL 149 ISS 8 FILE LAST UPDATED: 19 Aug 2008 (20080819/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

1 L3 L4

=> d 14, ibib abs hitstr, 1

ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:875058 HCAPLUS

DOCUMENT NUMBER: 139:350581

TITLE: Preparation of pyridoxal phosphate derivatives for

treating or preventing viral infections and associated

diseases

INVENTOR(S): Diana, Guy D.; Bailey, Thomas R.; Young, Dorothy C.;

Chunduru, Srinivas K.

PATENT ASSIGNEE(S): Viropharma Incorporated, USA

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	PATENT NO.					D	DATE			APPLICATION NO.					DATE			
	2003090674 2003090674									WO 2003-US12192					20030423			
WO	∠003 W:						AU,		BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,	
		PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ΤJ,	TM,	TN,	TR,	TT,	
		TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW						
	RW:	GH,	GM,	ΚE,	LS,	MW,	MΖ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	
		KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
		FI,	FR,	GB,	GR,	HU,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,	
		BF,	ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG	
AU	AU 2003237088					A1 20031110				AU 2003-237088					20030423			
US	US 20050288258				A1	A1 20051229				US 2005-511430					20050818			
PRIORIT	RIORITY APPLN. INFO.:									US 2	002-	3747	40P]	2	0020	423	
										WO 2	003-	US12	192	Ī	W 2	0030	423	
OTHER SO	HER SOURCE(S):				MAR:	MARPAT 139:350581												

HER SOURCE(S):

GΙ

10551430

AB Pyridoxal derivs. I [X = CH:N, (un)substituted CH:CH; R = (un)substituted alkyl, aryl, aralkyl, heterocyclic, NH2; R1 = (un)substituted alkyl] were prepared for use as inhibitors of viruses of the Flaviviridae family (no data). Thus, pyridoxal phosphate was treated with 2-aminonaphthalene to give I [X = CH:N, R = 2-naphthyl, R1 = Me].

IT 619315-29-6P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridoxal phosphate derivs. for treating or preventing viral infections and associated diseases)

RN 619315-29-6 HCAPLUS

CN 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-[[(5-methyl-1H-tetrazol-1-yl)imino]methyl]-, α -(dihydrogen phosphate) (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{H}_2\text{O}_3\text{PO-CH}_2\\ \text{N} \\ \text{N} \\ \text{N} \\ \text{OH} \end{array}$$

=> file caold COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 8.14 191.31 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL SESSION ENTRY CA SUBSCRIBER PRICE -0.80-0.80

FILE 'CAOLD' ENTERED AT 17:34:16 ON 20 AUG 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d his

(FILE 'HOME' ENTERED AT 17:26:49 ON 20 AUG 2008)

FILE 'REGISTRY' ENTERED AT 17:27:05 ON 20 AUG 2008

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 1 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 17:33:35 ON 20 AUG 2008 L4 1 S L3

FILE 'CAOLD' ENTERED AT 17:34:16 ON 20 AUG 2008

=> s 13

L5 0 L3

=> file reg

COST IN U.S. DOLLARS

SINCE FILE
ENTRY
SESSION
FULL ESTIMATED COST

0.46
191.77

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL

CA SUBSCRIBER PRICE ENTRY SESSION 0.00 -0.80

FILE 'REGISTRY' ENTERED AT 17:34:22 ON 20 AUG 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 AUG 2008 HIGHEST RN 1042061-07-3 DICTIONARY FILE UPDATES: 19 AUG 2008 HIGHEST RN 1042061-07-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting ${\tt SmartSELECT}$ searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

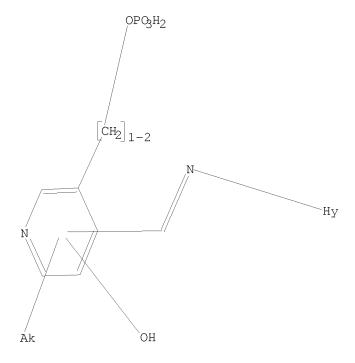
http://www.cas.org/support/stngen/stndoc/properties.html

=>

Uploading C:\Documents and Settings\brobinson1\My Documents\aaaka.str

L6 STRUCTURE UPLOADED

=> d 16 L6 HAS NO ANSWERS L6 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 16' MISMATCHED QUOTE 'L6'' Quotation marks (or apostrophes) must be used in pairs, one before and one after the expression you are setting off or masking.

=> s 16 SAMPLE SEARCH INITIATED 17:37:22 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 99 TO ITERATE 100.0% PROCESSED 99 ITERATIONS 1 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1384 TO 2576

PROJECTED ITERATIONS: 1384 TO 2576 PROJECTED ANSWERS: 1 TO 80

L7 1 SEA SSS SAM L6

=> s 16 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y FULL SEARCH INITIATED 17:37:26 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1874 TO ITERATE

100.0% PROCESSED 1874 ITERATIONS 7 ANSWERS

SEARCH TIME: 00.00.01

L8 7 SEA SSS FUL L6

=> d his

(FILE 'HOME' ENTERED AT 17:26:49 ON 20 AUG 2008)

FILE 'REGISTRY' ENTERED AT 17:27:05 ON 20 AUG 2008

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 1 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 17:33:35 ON 20 AUG 2008

L4 1 S L3

FILE 'CAOLD' ENTERED AT 17:34:16 ON 20 AUG 2008

L5 0 S L3

FILE 'REGISTRY' ENTERED AT 17:34:22 ON 20 AUG 2008

L6 STRUCTURE UPLOADED

L7 1 S L6

L8 7 S L6 FULL

=> s 18 not 13

L9 6 L8 NOT L3

=> file hcaplus

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 180.20 371.97

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -0.80

FILE 'HCAPLUS' ENTERED AT 17:37:35 ON 20 AUG 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 20 Aug 2008 VOL 149 ISS 8 FILE LAST UPDATED: 19 Aug 2008 (20080819/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 19 L10 6 L9

=> s 110 and diana, g?/au 162 DIANA, G?/AU

L11 0 L10 AND DIANA, G?/AU

=> s 110 and bailey, t?/au 551 BAILEY, T?/AU

L12 0 L10 AND BAILEY, T?/AU

=> s 110 and young, d?/au 4463 YOUNG, D?/AU

L13 0 L10 AND YOUNG, D?/AU

=> d 110, ibib abs hitstr, 1-6

L10 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:764445 HCAPLUS

DOCUMENT NUMBER: 147:316956

TITLE: Molecular Architecture of DesI: A Key Enzyme in the

Biosynthesis of Desosamine

AUTHOR(S): Burgie, E. Sethe; Holden, Hazel M.

CORPORATE SOURCE: Department of Biochemistry, University of Wisconsin,

Madison, WI, 53706, USA

SOURCE: Biochemistry (2007), 46(31), 8999-9006

CODEN: BICHAW; ISSN: 0006-2960

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB Desosamine is a 3-(dimethylamino)-3,4,6-trideoxyhexose found, for example, in such macrolide antibiotics as erthyromycin, azithromycin, and

clarithromycin. The efficacies of these macrolide antibiotics are markedly reduced in the absence of desosamine. In the bacterium Streptomyces venezuelae, six enzymes are required for the production of dTDP-desosamine. The focus of this X-ray crystallog. anal. is the third enzyme in the pathway, a PLP-dependent aminotransferase referred to as DesI. The structure of DesI was solved in complex with its product, dTDP-4-amino-4,6-dideoxyglucose, to a nominal resolution of 2.1 Å. Each subunit of the dimeric enzyme contains 12 α -helixes and 14 β -strands. Three cis-peptides are observed in each subunit, Phe 330, Pro 332, and Pro 339. The two active sites of the enzyme are located in clefts at the subunit/subunit interface. Electron d. corresponding to the bound product clearly demonstrates a covalent bond between the amino group of the product and C-4' of the PLP cofactor. Interestingly, there are no hydrogen-bonding interactions between the protein and the dideoxyglucosyl group of the product (within 3.2 Å). The only other sugar-modifying aminotransferase whose structure is known in the presence of product is PseC from Helicobacter pylori. This enzyme, as opposed to DesI, catalyzes amino transfer to the axial position of the sugar. A superposition of the two active sites for these proteins reveals that the major differences in ligand binding occur in the orientations of the deoxyglucosyl and phosphoryl groups. Indeed, the nearly 180° difference in hexose orientation explains the equatorial vs. axial amino transfer exhibited by DesI and PseC, resp.

IT 947753-02-8

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(external aldimine intermediate; structural study indicates orientation of substrate hexose ring promotes equatorial amino transfer by DesI from S. venezuelae)

RN 947753-02-8 HCAPLUS

CN Thymidine 5'-(trihydrogen diphosphate), P'-[4,6-dideoxy-4-[(E)-[[3-hydroxy-2-methyl-5-[(phosphonooxy)methyl]-4-pyridinyl]methylene]amino]- α -D-glucopyranosyl] ester (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

PAGE 1-B

` Me

AUTHOR(S):

CORPORATE SOURCE:

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:123824 HCAPLUS

DOCUMENT NUMBER: 116:123824

ORIGINAL REFERENCE NO.: 116:20820h, 20821a

TITLE:

Mechanistic and stereochemical studies of a unique dehydration catalyzed by CDP-4-keto-6-deoxy-D-glucose-3-dehydrase: a pyridoxamine 5'-phosphate dependent enzyme isolated from Yersinia pseudotuberculosis

Weigel, Theresa M.; Miller, Vaughn P.; Liu, Hung Wen Dep. Chem., Univ. Minnesota, Minneapolis, MN, 55455,

USA

SOURCE: Biochemistry (1992), 31(7), 2140-7

CODEN: BICHAW; ISSN: 0006-2960

DOCUMENT TYPE: Journal LANGUAGE: English

CDP-4-keto-6-deoxy-D-glucose 3-dehydrase (E1) purified from Y. pseudotuberculosis is a pyridoxamine 5'-phosphate (PMP)-dependent enzyme which catalyzes the C-O bond cleavage at C-3 of a CDP-4-keto-6-deoxy-Dglucose substrate, a key step in the formation of 3,6-dideoxyhexoses. Since enzyme E1 utilizes the PMP cofactor in a unique manner, it is essential to establish its role in El catalysis. When an incubation was conducted in [180]H2O, incorporation of 180 into positions C-3 and C-4 of the recovered substrate was observed. This result not only provided the evidence necessary to reveal the reversibility of E1 catalysis but also lent credence to the formation of a $\Delta 3$, 4-glucoseen intermediate. In view of El catalysis being initiated by a C-4' deprotonation of the PMP-substrate complex the stereochem. course of this step was examined using chemical synthesized (4'S) - and (4'R) - [4'-3H] PMP as probes. The results clearly demonstrated that the stereochem. of this deprotonation of pro-S specific, which was in agreement with the stereochem. consistency found with other vitamin B6 phosphate-dependent enzymes. The fact that reprotonation at C-4' of the PMP- $\Delta 3$, 4-glucoseen complex in the reverse direction of E1 catalysis was also found to be pro-S-stereospecific strongly suggested that enzyme E1, like most of its counterparts, has the si face of its cofactor-substrate complex exposed to solvent and accessible to active-site catalytic groups as well. These stereochem. studies have given support to the role postulated for the PMP cofactor in the proposed mechanism, and they also suggest that the active site of El may share features similar to other pyridoxal 5'-phosphate/PMP-linked enzymes which control the orientation of the cofactor-substrate complex. It is worth noting that enzyme E1 cannot finish C-3 deoxygenation without CDP-6-deoxy- Δ 3,4-glucoseen reductase (E3) which reduces the nascent E1 product, driving the equilibrium to completion. Although chemical reducing reagents failed to trap the transient E1 product, 2 well-known electron shuttle proteins were able to generate a small amount of the dideoxyhexose product. The fact that other electron-transfer reductases can act as substitutes for E3 provided compelling evidence supporting the earlier notion that the E1 product is reduced by a stepwise le-/le- transfer mechanism. Thus, E1, despite its having evolved an unusual role for the PMP cofactor, has retained all the essential elements of catalysis common to other vitamin B6 phosphate-dependent enzymes. These results also support the hypothesis of H. C. Dunathan (1971) that this class of enzymes, regardless of its catalytic diversity, evolved from a common progenitor.

IT 139200-07-0

RL: BIOL (Biological study)

(formation and enzymic reduction of, CDP-ketodeoxyglucose dehydrase reaction mechanism in relation to)

RN 139200-07-0 HCAPLUS

CN Cytidine 5'-(trihydrogen diphosphate), P'-[3,4,6-trideoxy-4-[[[3-hydroxy-2-methyl-5-[(phosphonooxy)methyl]-4-pyridinyl]methylene]amino]- α -D-erythro-hex-3-enopyranosyl] ester (9CI) (CA INDEX NAME)

L10 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:504349 HCAPLUS

DOCUMENT NUMBER: 91:104349

ORIGINAL REFERENCE NO.: 91:16817a,16820a

TITLE: Vitamin B6 antagonists of natural origin

AUTHOR(S): Klosterman, Harold J.

CORPORATE SOURCE: Dep. Biochem., North Dakota State Univ., Fargo, ND,

USA

SOURCE: Methods in Enzymology (1979), 62 (Vitam. Coenzymes,

Part D), 483-95

CODEN: MENZAU; ISSN: 0076-6879

DOCUMENT TYPE: Journal LANGUAGE: English

AB Methods for the preparation of some naturally occurring carbonyl reagents and their phosphopyridoxylidene derivs. are presented along with examples of the use of the carbonyl reagents in the study of enzymes.

IT 71299-97-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, for apoaspartate aminotransferase inhibition studies)

RN 71299-97-3 HCAPLUS

CN Proline, 1-[[[3-hydroxy-2-methyl-5-[(phosphonooxy)methyl]-4-pyridinyl]methylene]amino]- (9CI) (CA INDEX NAME)

L10 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:564943 HCAPLUS

DOCUMENT NUMBER: 87:164943

ORIGINAL REFERENCE NO.: 87:26055a,26058a

TITLE: Fate of 1-aminoproline and urinary excretion of

1-aminoprolyl hydrazone of pyridoxal in rats
AUTHOR(S): Tsuji, Hideaki; Moritoki, Keiko; Ogawa, Tadashi;

Sasaoka, Kei

CORPORATE SOURCE: Sch. Med., Tokushima Univ., Tokushima, Japan

SOURCE: Agricultural and Biological Chemistry (1977), 41(8),

1413-17

CODEN: ABCHA6; ISSN: 0002-1369

DOCUMENT TYPE: Journal LANGUAGE: English

AB 1-Aminoproline-U-14C was administered to rats i.p. The radioactivity was distributed in all the tissues examined Among them, kidney, lung, liver, and spleen had high sp. activity. The radioactivity in the tissues and blood decreased rapidly as a function of time, except in brain. About 80% of the radioactivity administered was excreted in urine within 24 h. Besides intact 1-aminoproline, several radioactive compds. were detected in the urine sample, and one of them was identified as 1-aminoprolyl hydrazone of pyridoxal.

IT 64501-80-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 64501-80-0 HCAPLUS

CN L-Proline, 1-[[[3-hydroxy-2-methyl-5-[(phosphonooxy)methyl]-4-pyridinyl]methylene]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry unknown.

10551430

L10 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:440127 HCAPLUS

DOCUMENT NUMBER: 65:40127
ORIGINAL REFERENCE NO.: 65:7529a-b

TITLE: Multiplicity of cyclic amino acid decarboxylases

AUTHOR(S): Gonnard, Pierre; Camier, Maryse CORPORATE SOURCE: Lab. Chem. Biol., Nanterre, Fr.

SOURCE: Bulletin de la Societe de Chimie Biologique (1966),

48(2), 225-38

CODEN: BSCIA3; ISSN: 0037-9042

DOCUMENT TYPE: Journal LANGUAGE: French

The Union Internatl. of Biochem. recognizes 5 cyclic amino acid decarboxylases: L-tyrosine carboxy-lyase, 3,4-dihydroxy-L-phenylalanine carboxy-lyase (dopa decarboxylase (I)), L-tryptophan carboxy-lyase, 5-hydroxy-L-tryptophan carboxy-lyase (5-HT-decarboxylase (II)), and L-histidine carboxy-lyase. Some authors claim that I and II are the same enzyme. A study by the present authors of the action upon different decarboxylases of hydrazone, oxime, semicarbazone, and iminotriazole of phospho-5'-pyridoxal tends to confirm the view that I and II are the same enzyme; but some differences are apparent. Thus, the inhibition by hydroxylamine of II but not I can be reversed by addition of pyridoxal. Pyridoxal phosphate hydrazone of α -methylhydrazino-dopa inhibits the decarboxylation of 5-HT at every concentration whereas it enhances decarboxylation of dopa at low concns. and inhibits it at high concns.

IT 13184-01-5, 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4-triazol-4-ylformimidoyl)-, 3-(dihydrogen phosphate)

(amino acid decarboxylase response to)

RN 13184-01-5 HCAPLUS

CN 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4-triazol-4-ylformimidoyl)-, 3-(dihydrogen phosphate) (7CI, 8CI) (CA INDEX NAME)

N N N N
$$| CH_2 - OPO_3H_2$$

L10 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1964:69598 HCAPLUS

DOCUMENT NUMBER: 60:69598
ORIGINAL REFERENCE NO.: 60:12304a-c

TITLE: Action of phospho-5'-pyridoximinotriazole on pyridoxal

enzymes

AUTHOR(S): Gonnard, Pierre; Duhault, Jacques; Camier, Maryse;

Nguyen-Philippon, Claude; Boigne, Nicole

CORPORATE SOURCE: Nouvelle Fac. Med., Paris

SOURCE: Biochimica et Biophysica Acta, Specialized Section on

Enzymological Subjects (1964), 81(3), 548-59

CODEN: BBASD9; ISSN: 0926-6569

DOCUMENT TYPE: Journal LANGUAGE: French

AB Phospho-5'-pyridoximinotriazole behaves as cofactor of pyridoxal enzymes. It is more active than pyridoxal phosphate itself towards glutamate decarboxylase, dopa decarboxylase, and kynurenine hydrolase, and less active towards aspartic-glutamic transaminase. This compound was prepared and selected on account of its structure which is close to Schiff bases formed between amino acids substrates and pyridoxal phosphate, with the object of searching for a possible trans-Schiffization which could explain its coenzymic behavior by liberation of pyridoxal phosphate. The comparison of its activity with that of pyridoxal phosphate and the kinetics of this activity are not in favor of a hydrolysis. Some hypotheses are discussed for the purpose of finding an explanation to the activation of the pyridoxal enzymes by the imine.

IT 13184-01-5, 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4-triazol-4-ylformimidoyl)-, 3-(dihydrogen phosphate)

(effect on enzymes requiring pyridoxal 5-phosphate)

RN 13184-01-5 HCAPLUS

CN 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4-triazol-4-ylformimidoyl)-, 3-(dihydrogen phosphate) (7CI, 8CI) (CA INDEX NAME)

N N N
$$|$$
 N $|$ CH $|$

=> file caold COST IN U.S. DOLLARS SINCE FILE TOTAL SESSION ENTRY FULL ESTIMATED COST 40.77 412.74 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -4.80-5.60

FILE 'CAOLD' ENTERED AT 17:39:15 ON 20 AUG 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d his

(FILE 'HOME' ENTERED AT 17:26:49 ON 20 AUG 2008)

FILE 'REGISTRY' ENTERED AT 17:27:05 ON 20 AUG 2008

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 1 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 17:33:35 ON 20 AUG 2008 L4 1 S L3

FILE 'CAOLD' ENTERED AT 17:34:16 ON 20 AUG 2008

FILE 'REGISTRY' ENTERED AT 17:34:22 ON 20 AUG 2008

L6 STRUCTURE UPLOADED

L7 1 S L6

L8 7 S L6 FULL

L9 6 S L8 NOT L3

FILE 'HCAPLUS' ENTERED AT 17:37:35 ON 20 AUG 2008

L10 6 S L9

L11 0 S L10 AND DIANA, G?/AU L12 0 S L10 AND BAILEY, T?/AU

L13 0 S L10 AND YOUNG, D?/AU

FILE 'CAOLD' ENTERED AT 17:39:15 ON 20 AUG 2008

=> s 19

L14 2 L9

=> d 114, all, 1-2

L14 ANSWER 1 OF 2 CAOLD COPYRIGHT 2008 ACS on STN

AN CA65:7529a CAOLD

TI multiplicity of cyclic amino acid decarboxylases

AU Gonnard, Pierre; Camier, M.

IT 634-25-3 634-27-5 13184-01-5 13184-02-6 13532-05-3

L14 ANSWER 2 OF 2 CAOLD COPYRIGHT 2008 ACS on STN

AN CA60:12304a CAOLD

TI action of phospho-5-pyridoximinotriazole on pyridoxal enzymes

AU Gonnard, Pierre; Duhault, J.; Camier, M.; Nguyen-Philippon, C.; Boigne, N.

IT 13184-01-5

=> FIL REGISTRY

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 1.84 414.58 SINCE FILE DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) TOTAL SESSION ENTRY CA SUBSCRIBER PRICE 0.00 -5.60

FILE 'REGISTRY' ENTERED AT 17:39:31 ON 20 AUG 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ${\tt ZIC/VINITI}$ data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 AUG 2008 HIGHEST RN 1042061-07-3 DICTIONARY FILE UPDATES: 19 AUG 2008 HIGHEST RN 1042061-07-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 13184-01-5/RN

L15 1 13184-01-5/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND SET COMMAND COMPLETED

=> D L15 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y

10551430

THE ESTIMATED COST FOR THIS REQUEST IS 6.65 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L15 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN

RN 13184-01-5 REGISTRY

CN 3-Pyridinemethanol, 5-hydroxy-6-methyl-4-(N-4H-1,2,4-triazol-4-ylformimidoyl)-, 3-(dihydrogen phosphate) (7CI, 8CI) (CA INDEX NAME)

MF C10 H12 N5 O5 P

LC STN Files: CA, CAOLD, CAPLUS

DT.CA CAplus document type: Journal

RL.NP Roles from non-patents: NORL (No role in record)

$$\begin{array}{c|c} N & N & \\ N & N & \\ | & \\ CH & \\ HO & CH_2-OPO_3H_2 \\ \\ Me & N & \end{array}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 2 REFERENCES IN FILE CA (1907 TO DATE)
- 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)
- 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND SET COMMAND COMPLETED

=>